WHAT IS CLAIMED IS:

1. A process for the stripping of entrained and/or adsorbed hydrocarbons from particulate material, said process comprising:

contacting particles with a hydrocarbon stream;

disengaging hydrocarbons from the particles after contact with said hydrocarbon stream to produce a stream of contacted particles containing hydrocarbons;

passing the contacted particles downwardly over a plurality of sloped stripping baffles, each baffle having a top section proximate a top edge of said baffle and a bottom section proximate a bottom edge of said baffle, said top section and said bottom section being demarcated by an imaginary line extending laterally on said baffle and substantially parallel to one of said top edge, said bottom edge and an imaginary line bifurcating said baffle into equal areas, said top section and said bottom section of said baffle each including a plurality of openings;

discharging a stripping fluid upwardly through said openings of said baffles, a volumetric flow rate of stripping fluid moving through the bottom section of said baffle being greater than a volumetric flow rate of stripping fluid moving through the top section of said baffle, and stripping hydrocarbons from the particulate material;

recovering stripping fluid and stripped hydrocarbons from the stripping baffles; and

recovering stripped particles from the stripping baffles.

2. The process of claim 1 wherein a ratio of total area of openings per area of baffle in the bottom section is greater than in the top section of said baffle.

3. The process of claim 1 wherein an average distance between adjacent openings is smaller in the bottom section of the baffle than in the top section of the baffle.

4. The process of claim 1 wherein a total area of openings in the bottom section of said baffle is greater than the total area of openings in the top section of said baffle.

5. The process of claim 1 wherein openings in the bottom section and top section of said baffle are distributed in rows substantially parallel to one of said top and bottom edges.

6. The process of claim 5 wherein a distance between adjacent rows of openings and a distance between openings in one of said adjacent rows of openings is equal.

7. The process of claim 1 wherein the imaginary line intersects a mid-point between the top edge and the bottom edge.

8. The process of claim 1 wherein the flux rate through the stripper is less than 60,000 lbs/hr/ft^2 (292,920 kg/hr/m^2) of stripper area.

9. An apparatus for the stripping of entrained and/or adsorbed hydrocarbons from particulate material, said apparatus comprising:

a stripping vessel;

at least one port defined by the stripping vessel for receiving particles that contain entrained or adsorbed hydrocarbons from the contact of the particles with a hydrocarbon stream and for withdrawing stripping fluid and stripped hydrocarbons from the stripping vessel;

a plurality of sloped stripping baffles spaced apart vertically over at least a portion of the stripping vessel height with each baffle having a sloped surface, each baffle having a top section proximate a top edge of said baffle and a bottom section proximate a bottom edge of said baffle, said top section and said bottom section being demarcated by an imaginary line extending laterally on said baffle and substantially parallel to one of said top edge, said bottom edge and an imaginary line bifurcating said baffle into equal areas;

a plurality of openings on the top section of said baffle and a plurality of openings on the bottom section of said baffle, a ratio of the total area of openings to the area of the section of the baffle being greater in the bottom section of said baffle than in the top section of said baffle;

at least one fluid inlet for passing a stripping fluid to the underside of at least one stripping baffle for stripping hydrocarbons from the particulate material; and

at least one particle outlet for recovering stripped particles from the stripping baffles.

10. The apparatus of claim 9 wherein said at least one port comprises a single opening at the top of the stripping vessel for receiving particles and withdrawing stripping gas and stripping fluid.

11. The apparatus of claim 9 wherein each stripping baffle has a transverse projection equal to at least one-third of the minimum transverse cross-section of the stripping vessel at that baffle location.

12. The apparatus of claim 9 wherein a total area of openings in the bottom section is greater than in the top section of said baffle.

13. The apparatus of claim 9 wherein an average distance between adjacent openings is smaller in the bottom section of the baffle than in the top section of the baffle.

14. The apparatus of claim 9 wherein openings in the bottom section and top section of said baffle are distributed in rows substantially parallel to one of said top and bottom edges.

15. The apparatus of claim 14 wherein a distance between adjacent rows of openings and a distance between openings in one of said adjacent rows of openings is equal.

16. The apparatus of claim 9 wherein the imaginary line bifurcates said baffle into equal areas.

17. A process for the stripping of entrained and/or adsorbed hydrocarbons from particulate material, wherein the entrained and/or adsorbed hydrocarbons are from the fluidized catalytic cracking (FCC) of an FCC feed with a particulate material comprising an FCC catalyst, said process comprising:

contacting an FCC feed with FCC catalyst to provide a mixture of FCC catalyst and FCC feed and to convert the FCC feed while depositing coke on the FCC catalyst;

disengaging converted FCC feed from the FCC catalyst to produce a stream of disengaged catalyst particles containing hydrocarbons;

passing the disengaged catalyst particle stream into a stripping zone and passing the stream of catalyst particles downwardly over a plurality of vertically sloped stripping baffles in the stripping zone, each baffle having a top section proximate a top edge of said baffle and a bottom section proximate a bottom edge of said baffle, said top section and said bottom section being demarcated by an imaginary line extending laterally on said baffle and substantially parallel to one of said top edge, said bottom edge and an imaginary line bifurcating said baffle into equal areas;

discharging a stripping fluid upwardly through a plurality of openings in said top section of said baffle and a plurality of openings in said bottom section of said baffle, the openings are distributed to provide a greater volumetric

flow rate of stripping fluid to the lower portion of the sloped surface than to the upper portion of the sloped surface;

recovering stripping fluid and stripped hydrocarbons that pass upwardly from the stripping baffles;

recovering stripped FCC catalyst that passes downwardly from the stripping baffles;

passing stripped FCC catalyst to a regeneration zone to remove coke from the FCC catalyst; and

returning FCC catalyst from the regeneration zone for contact with the FCC feed.

18. The process of claim 17 wherein a total area of openings in the bottom section of said baffle is greater than the total area of openings in the top section of said baffle.

19. The process of claim 17 wherein a ratio of total area of openings per area of baffle in the bottom section is greater than in the top section of said baffle.

20. The process of claim 17 wherein an average distance between adjacent openings is smaller in the bottom section of the baffle than in the top section.